Orion DVI/USB Dual-Link/Dual-Head KVM xTender

- Extend DVI dual-link video or single-link dual head video plus USB2.0 over a single CATx (400ft/140m) or duplex Fiber cable (10,000ft/10km) with no loss of video quality.
- USB keyboard and mouse is included as standard with this high performance KVM extender.
- Brilliantly clear real-time video quality including 1920x1200, HD 1080p and dual-link 2560x1600 resolutions.
- Many options, including transparent USB2.0, analog and digital audio, local monitor and remote switch.

Orion Dual-Link - Product Introduction

The **Orion Dual-Link/Dual-Head xTender** is a Transmitter and Receiver Kit available with either CATx or Single Mode Fiber link interface.

The Transmitter (or CPU) unit connects directly to a PC/Server or host device with a DVI video output. USB keyboard and mouse operation is included with the kit. At the receiver end, connect a USB keyboard and mouse and a DVI monitor directly to the Receiver (or CON) unit. High quality DVI video and digital audio signals will transmit end-to-end over a single CATx or duplex fiber cable link.

Orion Dual-Link/Dual-Head xTender

- The standard product includes a special DMS-59 pin DVI-D connector that supports either a dual-link DVI-D or a dual-head module for two DVI-I single-link connections.
- Additional card modules can be added to the chassis as required, including USB-HID, USB2.0, analog and digital audio, PS2 and serial.
- Modular chassis available include, 2-card, 4-card, 6-card and 21-card chassis with redundant PSU if required.
- By default, the Transmitter unit sends DDC information to the host CPU/Server on power-up. If required, the DDC data from the remote monitor can be downloaded to the Transmitter unit.
- USB-HID ghosting enables keyboard and mouse descriptors to be stored in the Orion xTender. This prevents the repeated enumeration of keyboard and mouse by the host computer system.
- The Configuration File, containing device and video information, can be accessed via the Mini-USB service port.
- The parallel redundancy option enables two remote users to access the same host CPU/Server.
- If required, a local PC can be connected at the receiver end, enabling the user to access either the extender connection or the local PC.

Orion Dual-Link xTender - Product Features

High Performance Digital Video Quality

The **Orion Dual-Link xTender** provides high quality, near lossless DVI-D dual-link digital video with resolutions up to 2560x1600 at 330MPixels/sec. The DVI-I dual-head, single-link interface supports DVI or VGA resolutions to 1920x1200@60Hz, 1080p or 2K HD (2048x1152). The data rate is limited to 165Mpixels/sec.

DVI Dual-Link and Dual-Head Support

The **Orion Dual-Link/Dual-Head xTender** has a DMS-59 DVI connector at each end and includes a special DVI cable for DMS-59<>DVI interface. The dual-link cable connects the DMS-59 to a standard DVI-D dual-link connector. The single-link "Y" cable converts the DMS-59 interface to (2) DVI-I connectors for DVI-I or VGA input/output.

USB-HID and USB2.0 Support

The **Orion Dual-Link/Dual-Head xTender** includes support for up to two USB-HID devices. A USB Hub can be added, but the maximum number of simultaneously supported USB-HID devices is two. Each USB-HID port provides a maximum current of 100mA. The xTender is compatible with most 2-button, 3-button and scroll mice, and also most USB keyboards are supported.
For higher USB speeds, use one of the two USB2.0 option cards available. USB2.0 (480Mbps) supports all USB2.0 devices and requires one additional link cable. Embedded USB2.0 (12Mbps) is transmitted over the included link cable. Both cards utilize a single slot space in the Orion xTender chassis.
Audio over USB2.0 can be configured on the Orion xTender.

TX Unit
Dual-Link xTender with USB-HID

RX Unit
Dual Link xTender with USB-HID

"Y" Cable format

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Interconnect Link Cable

The interconnect cable can be either CATx or Fiber cable with LC-type connectors. CATx cable is the same as specified for Gigabit Ethernet (1000Base-T), 24AWG, solid core. CAT5e or better cable is recommended. Fiber cable can be Single-Mode or Multi-Mode with LC connectors. The interconnect link cable cannot be routed across an active network.

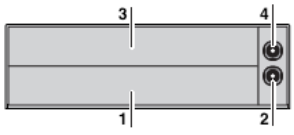
Parallel User Operation.

There is an optional Transmitter unit with redundant (dual) CATx and Fiber connectors. It is possible to configure two Receiver units to compete for control of the redundant Transmitter unit.

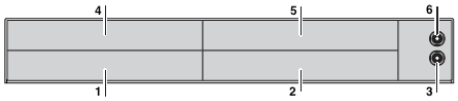
Standard Card Configurations (Check with Rose Electronics for a full listing of all Orion-dual-link card options).

Transmitter Unit	Receiver Unit
CATx, USB-B, DVI	CATx, USB-A (2), DVI
Fiber, USB-B, DVI	Fiber, USB-A (2), DVI
Dual CATx, USB-B, DVI	Dual CATx, USB-A (2), DVI

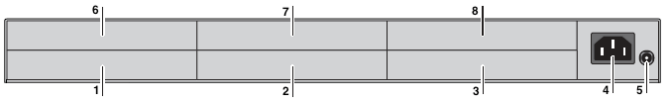
Standard Chassis Configurations



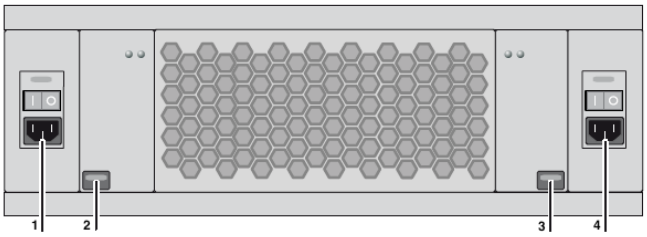
1/3 = card slots,
2 = +5VDC,
4 = Redundant +5VDC



1/2/4/5 = card slots. 3 = +5VDC. 6 = Redundant +5VDC



1/2/3/6/7/8 = card slots. 4 = IEC. 5 = +5VDC.



1/4 = IEC power. 2/3 = Locking for power

Specifications

Physical Dimensions (Chassis size) W x D x H	2-card. 145 x 147 x 41 mm (5.7" x 5.8" x 1.7") 4-card. 293 x 147 x 41 mm (11.5" x 5.8" x 1.7") 6-card. 442 x 147 x 41 mm (17.4" x 5.8" x 1.7") 21-card. 482 x 462 x 176 mm (19" x 18.2" x 6.9")	
Weight	2-6 card chassis. 0.9 - 3.1lbs (0.4 - 1.4Kg) 21-card chassis. 22.1lbs (10.0Kg)	
Connectors: **Video Interface** **USB Interface** **Service Port** **Interconnect Port**	**Transmitter** DVI DMS-59 x1 USB-B x1 Mini USB RJ45 or dual Fiber-LC	**Receiver** DVI DMS-59 x 1 USB-A (HID x 2) Mini USB RJ45 or dual Fiber -LC
Optional Cards: **Dual Port Link Cable** **Analog Audio/Serial** **Digital Audio** **USB2.0** **PS2**	**Transmitter** RJ45 x2 or Fiber x2 3.5mm x2 + DB9(F) RCA, Mini-XLR, Toslink USB-B x1 PS2 x2 or 2xIN/2xOut	**Receiver** RJ45 x2 or Fiber x2 3.5mm x2 + DB9(M) RCA, Mini-XLR, Toslink USB-A x2 PS2 x2
Video Resolution	Single-link, digital (DVI) and analog (VGA) 1920 x 1200/60Hz, 1080p, 2K (2048x1152) Dual-link, digital DVI, 2560x2048@60Hz	
Pixel Clock Speed	Single-link: 165 MPixels/sec and 8-bit Dual-link: 330MPixels/sec	
LED Status	Link failure, Link Status, Video, USB	
USB - HID **- Embedded** **- USB2.0**	Output 100mA each Output 500mA each, full speed 12Mbps Output 500mA each, high speed 480Mbps	
CATx cable length	400ft (140 meters), CAT5e or better, 1000BASE-T, 24-AWG, EIA/TIA-568-B	
Fiber cable length (Duplex LC Type)	Utilizes Gigabyte SFP's with LC connector Multi-mode 62.5µm 650ft (200m) Multi-mode 50µm 1300ft (400m) Multi-mode 50µm OM3 3280ft (1000m) Single-mode 9µm 32800ft (10km)	
Analog Audio	2x 3.5mm stereo audio jacks, line level	
Digital Audio	Unidirectional, RCS, Mini-XLR, Toslink	
Serial (DB9M)	115,200bps, TX/RX, RTS/CTS/DTR/DSR RS422	
Power - 2 card **- 4 card** **- 6 card** **- 21 card**	100-240VAC, 50/60Hz, +5V/5A 100-240VAC, 50/60Hz, +5V/5A 100-240VAC, 47/63Hz, +5V/8A 100-240VAC, 50/60Hz (x 2)	
Operating Temps **Rel. Humidity**	41°F to 113°F (5 °C to 45 °C) 80% non-condensing	
Product Approvals	FCC-15 Class A, CE, WEEE, RoHS/RoHS-2	

Part Numbers (contact Rose for a full part number listing)

OT2-SLDTXUSL1	CATx Transmitter, DVI Dual-Head, USB-HID
OR2-SRDTXUSL1	CATx Receiver, DVI Dual-Head, USB-HID
OT2-SLDFSUDL1	SM Fiber Transmitter, DVI Dual-Link, USB-HID
OR2-SRDFSUDL1	SM Fiber Receiver, DVI Dual-Link, USB-HID
/1T	Add USB2.0 (480Mbps) to part number
/1E	Add embedded USB2.0 (12Mbps)
/1AS	Add Analog Audio/Serial to part number
RM-BR3DV4/19	Rackmount shelf. 19" mount, 1U

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